TOP SECRET

25X1A [redacted]

MCGWG-M-36

COMIREX MAPPING, CHARTING AND GEODESY WORKING GROUP

Minutes of Meeting Held in Room 1D918
Pentagon
1400-1600, 1 August 1968

PRESIDING

[redacted] 25X1A

Purpose of Meeting - General

25X1A 1. [redacted] indicated that the purpose of the meeting was to cover the items forwarded the Working Group on 30 July in A-MCGWG-M-36. In general terms, there were three items for which specific actions should be taken, and five items listed on the agenda for which up-to-date status information should be presented and future actions scheduled.

25X1A [redacted]

Copy 21 of 28 Copies

[redacted] 25X1A

25X1A [redacted]

TOP SECRET

25X1A [redacted]

25X1A

MCGWG-M-36

[redacted]

NRO Progress on Meeting World-Wide Positioning Requirements

25X1A 3. [redacted] reported that he had been informally advised that NRO was expecting to forward the study on above subject to Chairman, COMIREX on 1 August 1968 and asked [redacted] concerning the status. Col 25X1A
25X1A [redacted] indicated that NRO was aware of our interest in receiving this study and that final changes, as requested by [redacted] had been made last 25X1A Monday. Its release was a matter of [redacted] approval before forwarding 25X1A to COMIREX. The Chairman and other members noted that the NRO had been working on the matter since last Fall and [redacted] had estimated 25X1A that the study would be forwarded several months ago. Following discussion, it was concluded that the Chairman of the Working Group should express to the Chairman, COMIREX the continuing concern of the MCGWG that the NRO study be forwarded for review in the very near future. In response to
25X1A [redacted] question concerning the requirement, [redacted] indicated 25X1A that studies were going on within Air Force which could lead to validating a more precise positional requirement than the 450', 90% assurance.
25X1A [redacted] mentioned that DDR&E was also considering whether hardware
25X1A technology trends would support improved world-wide positioning accuracy beyond the 450'. [redacted] expressed that the study did not offer ways and means of collecting data to meet the 450' requirement prior to

[redacted] 25X1A
25X1A

[redacted]

25X1A [redacted]

25X1A the summer of 1970. [redacted] noted that this would be about two years later than the requirement still on record. The Working Group discussed briefly the COMIREX action that did not authorize the change in launch time to accomplish the short arc data reduction technique for improving

25X1A world-wide positioning. [redacted] indicated that there was an attitude of wanting to be able to take steps to improve the positioning requirements and that a letter was being sent from COMIREX to NRO with copy to MCGWG asking that NRO work closely with the MCGWG in proposing other alternatives to improve target positioning.

KH-4 Re-Coverage Outside Sino-Soviet Area

25X1A 4. [redacted] referred to the discussion at the 11 April MCGWG meeting, at which time the first indication had been made for a requirement for J-3 re-coverage in an area in South America. That discussion further indicated that re-coverage would also be needed in other areas of firm stereo production by AMS or ACIC in the next two years, and that J-3 (KH-4B) photography is much preferred over J-1 photography (KH-4) because of the increased accuracy and decreased cost factors, but that J-1 coverage should still be collected in all areas of difficult weather. It was concluded in the 11 April meeting that the J-1 versus J-3 coverage matter in areas of stereo production would be further studied which had now been done with the conclusion that J-3 re-coverage over areas of J-1 coverage should be obtained only in those areas outside the Sino-Soviet area where there were firm stereo production plans by AMS or ACIC in the next one to two years. The extent of this re-coverage of J-3 over J-1 was estimated at 1 to 2 million square miles annually outside the Sino-Soviet area, and this amount of coverage had been included in the attachment to COMIREX-D-15.2/8 dated 5 June 1968, subject: Revised Requirements for Satellite Photography for Mapping and Charting. It was mentioned that part of the basis for this decision had been that the outer 3 inches of the panoramic cameras of the J-1 system had been found to contain significant distortions such that this portion of the photographs could not be used in analog plotting equipments without severe loss in accuracy. Because of the nature of the J-3 panoramic systems compared to the J-1, such distortions were considerably less and also the J-3 had a 3-inch frame camera compared to the 1½-inch of the J-1, enabling much greater accuracies from the J-3 data. In this review of the quality of KH-4 data for photogrammetric purposes, it had also been found that sun reflections from sandy regions had made coverage of one of the panoramic cameras practically unusable and that something needed to be done to overcome this problem. Discussion indicated that it would be pointless to ask for re-coverage of such areas unless NRO

[redacted] 25X1A
25X1A

[redacted]

25X1A

MCGWG-M-36

could overcome the glare problem. NRO was asked to study this problem to come up with methods of obtaining improved coverage before any re-coverage requirements for this purpose were set forth. It was emphasized that re-coverage of J-1 areas outside the Sino-Soviet was required for only those areas of stereo photogrammetric production by AMS and ACIC in the next 1-2 years. For other areas and for other mapping-charting purposes (such as photo revision) the present J-1 coverage would be considered satisfactory. There was considerable discussion of the need for re-coverage - [redacted] pointing out that this was not well understood in CIA and pointing out that the CIA representative would like to understand more about why this is necessary. It was concluded that action should be taken by the DoD to invite COMIREX representatives to see first-hand, in AMS and ACIC, technical operations and considerations that were the basis for collection requirements for both coverage and re-coverage.

25X1A

Technical Criteria for Retaining Geometric Properties in the Processing of [redacted] Photography

25X1D

5. [redacted] brought out that the question in concern was one of timing in that action was underway to present an appropriate paper to the Working Group. [redacted] mentioned that [redacted] of DIA had dealt with key technical representatives of Army and Air Force and that a paper with technical criteria was now being coordinated. Since many people had been on leave or on TDY, as much time as possible was needed. [redacted] of NRO stressed that it would be necessary for NRO to have these technical criteria by approximately 1 September, since the NRO was scheduling re-negotiations of contracts at that time. After discussion, [redacted] asked that the DoD action to develop the criteria be scheduled such that the Working Group meeting could be held by the 14th of August, and that there be ample time to have the criteria in NRO's hands by 1 September.

25X1A 25X1A 25X1A 25X1A 25X1A

All-Weather Sensing Capability for Politically Denied Areas

6. [redacted] indicated the purpose was to identify the status of actions. [redacted] advised that his office had furnished a memorandum to the Chairman, COMIREX, setting forth a rather high cost for accomplishing all-weather sensing by satellite means and indicating that it would be more practical to consider such all-weather sensing by aircraft systems. [redacted] to check on the status of this action in the COMIREX office with the objective of providing appropriate information to the MCGWG.

25X1A 25X1A 25X1A

[redacted]

25X1A 25X1A

25X1A [redacted]

MCGWG-M-36

MC&G Requirements Affecting Scheduling of KH-4 Missions without DISICS

25X1A 25X1A 7. [redacted] mentioned that DIA had undertaken action to study the question. [redacted] indicated that of the previous nominations by NRO as to which missions from their point of view should not contain the DISIC, that Mission 1105 would carry all UTB and is now "in concrete." He said from his best judgment, this mission was one of the poorest to be considered for carrying a DISIC in that it was a new camera with an old vehicle, has an old programmer, that with the UTB they could get an 18-day mission without the DISIC on board. As a general rule, he thought the scheduling of these missions without DISICS should be roughly six months apart. It was concluded that Mission 1105 should be recognized as the first KH-4B mission without a DISIC. [redacted] said that 25X1A the scheduling of KH-4B missions without DISICS from the viewpoint of the utilization community, should be completed prior to 1 October 1968.

Consideration of UTB in KH-4B Frame Camera

8. Correspondence originating from the NRO on this subject was forwarded MCGWG members on 28 June 1968 indicating that action would be scheduled at a later date. The question at hand was when the MCGWG would need to complete the action on this matter. [redacted] 25X1A indicated that NRO must know by the 1st of October. Accordingly, Colonel 25X1A [redacted] asked that actions be scheduled to complete this study of the applicability of UTB in the early part of September 1968, which would leave enough time for action to go through the COMIREX Committee to NRO.

Revised Requirements for Satellite Photography for Mapping and Charting (COMIREX-D-15.2/8 dated 5 June 1968

9. This item was on the agenda to identify what future action was needed. It was recognized that COMIREX-D-15.2/8 summarized the future 25X1A KH-4 program as well as the [redacted] program but that only the area 25X1A coverage aspects of the [redacted] system had been carried forward for 25X1A USIB approval. Both [redacted] mentioned that there 25X1A had been concern in the CIA in the final coordination of COMIREX-D-15.2/8 as pertained to KH-4B requirements. It was concluded that [redacted] 25X1A would take up with [redacted] the actions required on COMIREX-D-15.2/8. 25X1A [redacted] mentioned that in the final USIB coordination of the summary requirements for area coverage by [redacted] for mapping and charting 25X1A (USIB-D-46.4/18, 1 August 1968, LIMDIS) that the DIA concurrence was predicated on the understanding that the 3-5 million square miles annual

[redacted] 25X1A 25X1A

[redacted]

25X1A [redacted]

MCGWG-M-36

maintenance requirement represents relatively small areas scattered world-wide, whereas the 19-28 million square miles requirement for the first three years consists primarily of large contiguous segments of the earth's surface.

25X1A [redacted]

COLONEL, USA
CHAIRMAN
COMIREX MC&G Working Group

DISTRIBUTION:

25X1A [redacted]

[redacted] 25X1A
25X1A

[redacted]